

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: Yun-Ren Wang et al.

5 Appl. No.: 10/711,414 Filing Date: 09/17/2004

Examiner: MILLER, MICHAEL G Art Unit:1709

Docket No.: NAUP0594USA Confirmation No.: 5413

10 Title: PROCESS FOR DEPOSITING BTBAS-BASED SILICON NITRIDE  
FILMS

To: Commissioner for Patents  
P.O. BOX 1450  
15 Alexandria, VA 22313-1450

Subject: Information disclosure statement under 37  
CFR §1.56

20 Dear Sir,

25 This is an Information Disclosure Statement in  
accordance with the duty to disclose information  
material to patentability under 37 CFR §1.56. The  
applicant wishes to make of record the document(s)  
listed on the accompanying form PTO/SB/08.

30 Since this IDS is filed before the mailing date of the  
first Office action, consideration of the information  
disclosure statement is hereby requested according to 37 CFR  
§1.97(b).

That each item of information contained in the information disclosure statement was first cited in an Office communication mailed on March 02, 2007 for the counterpart China patent application number 200410011800X, which are no  
5 more than three months prior to the filing of the information disclosure statement.

According to the requirement set forth in 37 CFR §1.98(a)(2), the applicant is submitting a copy of the  
10 cited Japan patent 05-41374 (published on February 19, 1993).

A translation of the abstract of the Japan patent 05-41374 is as follow: PURPOSE: To prevent a haze from being  
15 produced and to eliminate that an etching residue is produced by a method wherein, when an SiO<sub>2</sub> film is chemically vapor-deposited, by using SiH<sub>4</sub> and N<sub>2</sub>O, on a substrate which has been place and heated inside a reaction tube, SiH<sub>4</sub> and N<sub>2</sub>O are mixed in a position at a distance from the reaction  
20 tube and, after that, they are introduced into the reaction tube. CONSTITUTION: Gases which are to be used are SiH<sub>4</sub> and N<sub>2</sub>O as reaction gases and N<sub>2</sub> as a purge gas. Haze-preventive measures composed of the following conditions are taken. SiH<sub>2</sub> and H<sub>2</sub>O are mixed and, after that, introduced into a reaction  
25 tube. A point A as a mixing position is separated from the reaction tube by 2 to 3m. The reaction gases are purged by using the gas in which SiH<sub>4</sub> and N<sub>2</sub>O have already been mixed. The respective gases are not purged independently of each other. A valve V10 in a bent line used to purge the reaction gases,  
30 a valve V8 in an N<sub>2</sub> purge line for the reaction tube and a valve V9 used to introduce the reaction gases into the reaction tube are arranged in a point 11 as a position where they are brought close to each other as far as possible so that the gases inside pipes can completely be purged.

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It is respectfully requested that the examiner can

consider the document(s) listed on the accompanying form  
PTO/SB/08 and that it be made of record in the application.  
The applicants sincerely hope that the examiner initials the  
cited reference(s) on the form and that a copy of the initialed  
5 form be sent to the applicants with the next communication  
from the examiner.

10 Respectfully submitted,

*Winston Hsu*

Date: 03/26/2007

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20 Note: Please leave a message in my voice mail if you need to  
talk to me. (The time in D.C. is 12 hours behind the Taiwan  
time, i.e. 9 AM in D.C. = 9 PM in Taiwan.)

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